

THE EVENING WORLD'S RADIO PHONE SERVICE COLUMN.

By Capt. Robt. Scofield Wood.
(Ed. F. C. M. C. Croix de Guerre with
four palms; formerly Commander 167th
Battalion, Royal Air Forces.)

Since the call letters of the Newark
broadcasting station, W J Z, which is
owned and operated by the Radio Cor-
poration—Westinghouse Company—
have become famous in the metropol-
itan district, great interest in the sta-
tion's construction has been manifested
by thousands of fans. Hardly a day
passes that our mail does not contain a
request for information concerning
some of the more important details of
this popular station. The daily pro-
grammes of W J Z have become an im-
portant factor of home life in this
city and everywhere across the coun-
try. To know something about its con-
struction. The following article is an an-
swer to some five hundred and twenty
requests for information of a technical
nature concerning the station that was
first to start broadcasting on a regular
daily schedule in this locality.

To start with, the set is located on
the roof of the Westinghouse factory
building which occupies a square block
at Plane and Orange Streets, near the
Lackawanna Station at Newark, New
Jersey. The entire important details of
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W J Z (Newark) 360 Metres

Features for the day:
Agricultural reports at 12 M. and 6
P. M.
Arlington official time at 12:55 to 1
P. M. and 10:55 to 11 P. M.
Music every hour from 11 A. M. to
6 P. M.
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Antenna and Counterpoise.

Mr. J. L. V. Hogan, the consulting
engineer, who supervised the installa-
tion of the instruments of W J Z, says
the antenna and counterpoise are
supported between a steel stack, which
extends 114 feet above the roof level,
and a special 60-foot mast mounted on
top of the building, about 150 feet
above the stack. The aerial consists of
five wires equally spaced on twenty-five
feet spacers; the counterpoise is iden-
tical, but instead of swinging from the
top of the stack and the mast it is
mounted directly underneath the aerial
and about twenty feet above the roof.
Thus the effective separation of the
two sections of the radiating system
is about ninety-four feet at one end
and forty feet at the other, giving a
net effective height of about sixty-
five feet. The six-wire cable down leads
run from both aerial and counterpoise
systems to the operating room, which
is in a special building on the roof, and
are connected by double-throw ground-
ing switches.

360-Metre Wave Used for Broadcasting.

The natural wave length of the an-
tenna-counterpoise system is about 500
metres, so that for transmission on 360
metres, which is the normal operating
wave length for operation of this class
station, series condensers of 0.0005 mi-
crofarads are inserted in each connec-
tion. These are placed directly below
the lead in insulators in the interior of
the station.

Two three-electrode vacuum tubes
are used as oscillators for radiophone
transmission and three somewhat simi-
lar but specially designed high-impe-
dance tubes modulate the radio fre-
quency currents generated by the other
pair. The antenna, counterpoise and
plate leads are all connected in the
split-coil oscillation circuit to the flat
spiral inductance on top of the radio
set.

This coil is made of flat copper strips
mounted on mica spacers and is ground-
ed at the minimum potential point
nearly midway between antenna
and counterpoise.

Oscillator and Modulator.

The oscillator and modulator tubes
run on 2,500 volt direct current, which
is produced by a single commutator
generator driven by a direct-connected
two phase, sixty-cycle, five-horsepower
motor. Special filter circuits are pro-
vided to suppress the commutator hum
produced by this machine with the re-
sult that outgoing speeches and music
are heard with very little extraneous
noise. The filaments of the five large
tubes are lighted by alternating current
at ten volts, this being drawn from a transformer.
In this circuit again it has been found
necessary to provide a grounded filter
arrangement to eliminate the foreign
noise of the sixty-cycle A. C. used. The
three modulator tubes are connected on
the plate modulation plate and are sup-
plied with voice frequency current from
a speech amplifier containing two three-

DIALS, BAKELITE, CABINETS

A complete stock of parts to build
your own Radio Set on hand.
Bescon Radio & Electric Co.
246 Greenwich Street,
Near Park Place, New York.

JONES RADIO SETS

\$29.00
Employ the
Super-sensitive Strong Circuit
(the Standard in Radio)
and are licensed thereunder.
Jones Radio Set, Brooklyn, N. Y.
Telephone 1217-B Lafayette.

WHAT IS A PACENTIZED RECEIVER?

Operating a radio phone receiver without PACENT
RADIO ESSENTIALS is like driving a car without the many
accessories that add so much to the pleasure of motoring.

The PACENT PLUG, TWIN ADAPTER and MULTI-
JACK will enable you to get the most out of your equipment.
Ask your dealer to show them to you.

Send for Bulletin No. N-100
Dealers: Our plan will interest you.

PACENT ELECTRIC CO.
150 Nassau Street New York City
Member Radio Section, Assoc. Mfrs. Elec. Supplies.

Rooster's Shriek Crowing Warned Rum Runners of Approach of the Hooch Destroyer Hahn, of Dry Navy

Traitorous Fowl Was Taken Aboard the Gov- ernment Craft, but His Cock-a-doodle-doo- ing Tipped Off All Wet Craft to Beat It.

Had it not been for the unconquer-
able enthusiasm of a large tenor
rooster, the hooch-destroyer Hahn,
pride of the Dry Navy, would never
have come back to-day to her berth
at the Barge Office with no dismal
a record of her four-day cruise after
bootleggers. That bird, taken on
food and never eaten, so persisted
in its crowing that it warned hooch-
runners for leagues across the sea and
sent them scurrying out of the Hahn's
path.

Thus it came about that in the 400-
mile cruise the Hahn made to the
waters off Atlantic City and the Cape
of the Delaware she was unable to
catch a single bootlegging craft. She
did overhaul about sixty vessels, but
they had nothing aboard that the crew
of the Hahn was seeking. One of the
vessels kindly gave the crew some
fish to replenish a falling store.

When the Hahn next goes to sea
the rooster will not be among those
present.

The evening the Hahn put in at At-
lantic City the police of that com-
munity, lying in wait, leaped upon her,
mistaking her for a hooch-runner.
This also happened when she
went up to Philadelphia.

What the Hahn intends next to
do is a matter of speculation.

Cruel Fathers Shatter Romance Of Gypsy Prince and Princess

Out on the long summer wandering
of the unmapped gypsy trails, two
tribes of the Romany people started,
one north and one west from the old
gypsy "spring camp" near Haw-
thorne, N. J. In both companies
were many happy children and many
hopeful elders. But the parents of
Princess Lottie Palmer, fourteen
years old, daughter of the chief of
one of the tribes, were worried and
the princess was so far from happy
that she hung her head and cried as
she sat on the seat of the chief's
wagon.

In the other tribe, too, there was
anger and grief in the leader's wagon.
Princess Henry Stanley, twenty-two
years old, son of the chief, went
about his work with a sulky scowl
and raised his hand threateningly when
he heard the giggled taunts of the
young women of his own clan.
Eight years ago these same two
tribes met at a camp on the Ohio
river. Lottie, who was then eight,
was for a week the playmate of
Princess Henry, who was then seven.
Princess Henry liked her adoration and
suggested to his father that it would
be very nice if there were a be-

Most Men Love at Least 2 Women, And It's Genuine, Asserts Tridon

Women, Too, Capable of Multiple Heart Throb,
Declares Psycho-Analyst, Contradicting
London Doctor.

Most men are in love with at least
two women, M. Andre Tridon, noted
psycho-analyst, declared to-day in an
interview.

Tridon thus took exception to the
statement of Dr. Davis Forsyth of
London, that man is incapable of being
genuinely in love with more than one
woman at a time.

The two simultaneous loves of the
average man, Tridon said, are:

1. For the woman of the mother
2. The other woman who thrills him
and stirs his emotions.

Women are similar, M. Tridon de-
clares. They are in love with two
men, or many men, at once, without
difficulty.

The craving known as love seeks
different characteristics to assuage it,
and scarce are the men, or women,
who furnish all these at once, he says.

Men and women both, in love, seek
two things, safety and romance, he
added.

20 SHOP THIEVES UP FOR SENTENCE

Father and Mother Confess
Stealing a Dress for
Their Child.

A score accused of shoplifting were
arraigned in the Court of Special Ses-
sions to-day on complaints by detec-
tives of the Stores Mutual Protective
Association. Most of them pleaded
guilty.

Emil Tobolski and his wife, Jennie,
No. 1319 First Avenue, confessed
stealing a dress for their child at
Macy's. The man was sent to the
workhouse for twenty days and the
woman was fined \$50.

William and John Moores, No. 818
West 67th Street, brothers, got thirty
days each for stealing alcohol and
tobacco articles from Macy's.

Morris Horn, No. 685 East 176th
Street, who said he was a song writer,
was sentenced to the City Reforma-
tory for stealing phonograph parts at
McCarthy's.

Adelaide Fitzpatrick, No. 814 West
25th Street, who had a record, was
sentenced to the penitentiary for
stealing a pair of bloomers at Macy's.

30,000 NEW CITIZENS IN BROX
In the Bronx at noon to-day the 50-
000 mark was passed in the making of
citizens out of aliens since the Bronx
has received its quota on Jan. 1, 1914. This
includes citizenship and first papers.

Potash and Perlmutter

The Partners Suggest
That the Medical Au-
thorities Advise the
Burglars That They
Are Burning the
Candle at Both Ends.

Enforcement of Other
Laws, They Find,
Probably Keeps the
Police Too Busy to
Look After the Bur-
glaries.

By Montague Glass.

"YES, Mawruss, if criminals
would only make ap-
pointments with detec-
tives to commit crimes and keep
such appointments, there would be
a whole lot of
more arrests than
there is at present,
but the trouble with
criminals is they are
so unreliable, y'under-
stand," Abe Potash
said to Mawruss Perlmutter as they
looked over
their burglary insurance policies a
few days ago.

"Detectives wait around till all
hours of the night for burglars to
show up in neighborhoods which
were very popular with burglars
only a few days before, y'under-
stand, and instead of acting like
reasonable human beings and
sticking to a territory where busi-
ness has always been good, under-
stand me, then burglars go to
work and rob other neighborhoods
which has never been visited by
burglars at all.

"And then people kick about the
way the police don't catch bur-
glars! How can they catch the
burglars when the burglars ain't
there?"

"But the idea is that the detec-
tives should surprise the burglars
at work, Abe," Mawruss Perlmutter
said.

"The burglar expects to be sur-
prised," Abe retorted, "and practically
never is, Mawruss, whereas the police
don't expect to be disappointed, and
always are, and instead of people
feeling sorry for their poor disap-
pointed detectives, y'understand, they
laugh at them yet."

"Well, what would you advise the
police to do, Abe?" Mawruss asked.

"Put in an advertisement reading:
**BURGLARS WANTED AT 240
Centre Street, ready to go to
work. Bring tools. Ask for
Mr. Enright**
and then wait for developments?"

"That would be anyhow a better
plan than the one they have at present,
Mawruss, which is to print in the
newspapers figures showing how
there ain't nearly so many rob-
beries under Mayor Hylan as there
used to be under other Mayors,"
Abe said.

**THE TELL-TALE SUSPENDER
BUTTON.**

"Then what's the matter with them
burglars anyway?" Mawruss inquired.
"Don't they read the newspapers? Or
is it just a case of anti-Tammany
syndrome?"

"To make a guess like that, Abe, I
would be to take the evidence to the
Sunderland Button Expert down at
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hours, Dumbwaiter Joe O'Brien alias
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"Maybe that's the way the case
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pair of pants, including his coat and
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On Burglary and Its Suppression.

"Detectives are all at their wits' ends about it, and when a detec-
tive has arrived at his wits' ends, he ain't travelled very far at that."

"I ain't had so much use for Mrs. Friedman's grandmother since
that time she came to dinner and had acute indigestion on us so bad
that she couldn't be moved for ten days."

"Before the police would believe that a man didn't actually rob
himself for advertising purposes or something, he's got to practically
prove an alibi."

"It it wasn't for the convenience of getting round
from place to place in stolen twin sixes, it would be
practically impossible for burglars to attend all the
burglaries which are being pulled off nightly."

"But they could anyhow taper off with once in a
while a hold-up or a couple of forgeries until in the
natural course of events they would become taxi driv-
ers or head waiters."

burglars trying to put a Democratic
administration in bad?"

"Well, as a matter of fact, Maw-
russ, this here boom in the burglar
and highwayman business is going on
throughout the whole country," Abe
declared. "Detectives in Chicago,
Kansas City and Los Angeles, as well
as all the other big cities, are at their
wits' ends about it and when a detec-
tive has arrived at his wits' ends,
Mr. Mawruss, he ain't travelled very far
at that."

"But from what you read about de-
tectives, Abe, I always thought they
were awful smart about catching
criminals," Mawruss protested. "All
you've got to show detectives is a
suspender button which the burglar
busted off while bending over to blow
open the safe, y'understand, and right
away they know that the burglar was
a 46 short stout, s. b. l. two hip
pockets, haircloth to the buttonholes,
no vent."

"After that, y'understand, all it is
necessary for such detectives to do
is to wait till the time he came to dinner
and had acute indigestion on us so
bad that she couldn't be moved for
ten days, Mawruss, I wouldn't go so
far as to agree with the detective in a
case like that."

"Well, that's the way it goes now-
adays, Abe," Morris said. "Every
time you read about a burglary in the
newspapers, the police seems to think
that the fellow who got robbed could
tell all about who did it if he wanted
to. In fact, before the police would
believe that he didn't actually rob
himself for advertising purposes or
something, he's got to practically
prove an alibi."

"And that ain't so easy to do for the
man that gets robbed as for the man
that robs him, Mawruss, because with
the number of burglaries that's going
on nowadays, Mawruss, it shouldn't
be difficult for any burglar to prove
that he didn't do it."

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